



# PNREC 2022

56th Pacific Northwest Regional Economic Conference

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May 23–25, 2022 | Hood River, Oregon

## **Navigating COVID-19 and Climate Disruption in the Pacific Northwest**

### **Event Program**

Best Western Plus Hood River Inn  
1108 E Marina Way  
Hood River, Oregon 97031



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## About the Pacific Northwest Regional Economic Conference

The Pacific Northwest Regional Economic Conference (PNREC) is a non-profit organization established to promote research and education on the economy of the Northwest states and western Canada. The objectives of the Conference are to:

- Present a program of professional papers, panels, and symposia that relate to regional economics.
- Enable distinguished regional scientists and policy analysts from elsewhere to play a featured role at the conference.
- Provide a forum for those from academia, business, and government to meet and interact professionally.
- Introduce and share current regional economic research with students, business, and community leaders.

The idea of PNREC came to Charles Tiebout, the noted and highly respected Professor of Urban and Regional Economics at the University of Washington, in 1966. He had observed that economic organizations in other parts of the U.S.—the New England Council, for example, and the Southern Economic Association—were undertaking studies that turned the spotlight on their regional economies. These suggested additional reports, possible policy responses, and in any case governmental grants, both to research the problems further and to propose remedies. Professor Tiebout thought that the Pacific Northwest should also initiate an organization, forum, or publication that examined its economy, discovered problem areas, and suggested remedial action.

To this end, Tiebout asked business and government economists and academic colleagues concerned with the regional economy to organize a startup conference at the University of Washington in early May of 1967. The first PNREC was held in 1967 at the Benson Hotel in downtown Portland. The inaugural conference lasted two days and was a great success. The program covered many topics, though it concentrated on the theory and practice of building input-output models that were then under construction in most states of the region. At the end of that first conference, everyone agreed that a second one should be convened a year later.

The plan for PNREC had been to let the annual conferences alternate between Seattle and Portland. In 1968, however, Dr. John Guthrie, Chair of the Department of Agricultural Economics at Washington State University, volunteered to organize the next one at his institution. Since that time, PNREC has been staged at sites throughout the Pacific Northwest and western Canada, including Missoula, Spokane, Olympia, Boise, Bellingham, Tacoma, Richland, Bend, Vancouver, and Victoria B.C.

The 2022 PNREC will be held in Hood River, Oregon. While the conference has experienced highs and lows over the past 56 years, it has survived and will continue to bring the region's economists together each year to share research, maintain connections, and build our understanding of the economic issues facing our region.



## **Conference Sponsor**



**Northwest Power and  
Conservation Council**

**To all our partners, keynote speakers, presenters, chairs, and volunteers:  
Thank You!**



PACIFIC NORTHWEST REGIONAL ECONOMIC CONFERENCE

## Best Western Plus Hood River Inn

All formal sessions will take place in the Best Western Plus Hood River Inn in the Gorge, Trillium West, Trillium East, Columbia and Shoreline rooms.





## PNREC 2022 AGENDA AT A GLANCE

May 23–25, 2022

Best Western Plus Hood River Inn | 1108 E Marina Way | Hood River, OR

### Monday, May 23, 2022

<b>5:00 PM – 8:00 PM</b>	Registration
<b>6:00 PM – 8:00 PM</b>	Meet and Greet Reception (Appetizers and Drink Ticket), No Host Bar

### Tuesday, May 24, 2022

<b>7:00 AM – 7:00 PM</b>	Registration	
<b>7:00 AM – 8:30 AM</b>	Continental Breakfast	
<b>8:30 AM – 8:40 AM</b>	Welcome from PNREC President	Anneliese Vance-Sherman, Washington Employment Security Department
<b>8:40 AM – 9:00 AM</b>	Welcome to The Columbia Gorge	Jessica Metta, Executive Director of the Mid-Columbia Economic Development District
<b>9:00 AM – 10:00 AM</b>	National Economic Outlook	Professor Rajeev Dhawan, Carl R. Zwerner Chair of Economic Forecasting, Georgia State University
<b>10:00 AM – 10:15 AM</b>	Networking Break, Beverages and Snacks	
<b>10:15 AM – 11:30 AM</b>	Session 1 (Panels 1–3)	
<b>11:30 AM – 11:45 AM</b>	Networking Break	
<b>11:45 AM – 1:15 PM</b>	Lunch and Labor Markets – Dr. Rob Valletta, Senior Vice President and Associate Director of Research, Federal Reserve Bank of San Francisco	
<b>1:15 PM – 1:30 PM</b>	Networking Break	
<b>1:30 PM – 2:45 PM</b>	Session 2 (Panels 4–6)	
<b>2:45 PM – 3:15 PM</b>	Networking Break, Beverages and Snacks	



**3:15 PM – 4:30 PM**      Session 3 (Panels 7–8)  
**5:00 PM – 7:00 PM**      Reception (Appetizers and Drink Ticket), Bill Beyers  
 Tribute, No Host Bar

**Wednesday, May 25, 2022**

**7:00 AM – 4:00 PM**      Registration  
**7:30 AM – 8:30 AM**      Breakfast  
**7:40 AM – 8:00 AM**      Welcome to Hood River      Honorable Kate McBride  
    Mayor of Hood River  
**8:00 AM – 9:00 AM**      *Monopoly Power and Democracy* – Matt Stoller, Director of  
 Research, The American Economic Liberties Project  
**9:00 AM – 10:15 AM**      Session 4 (Panels 9–11)  
**10:15 AM – 10:30 AM**      Networking Break, Beverages and Snacks  
**10:30 AM – 11:45 PM**      Session 5 (Panels 12-14)  
**11:45 AM – 1:15 PM**      Lunch and Labor Markets – Dr. Vellore Arthi, Assistant  
 Professor of Economics, University of California, Irvine  
**1:15 PM – 1:30 PM**      Networking Break  
**1:30 PM – 2:45 PM**      Session 6 (Panels 15-16)  
**2:45 PM – 3:15 PM**      Networking Break, Beverages and Snacks  
**3:15 PM – 4:45 PM**      Regional Outlook  
**4:45 PM – 5:00 PM**      Closing Ceremonies



## Logistical Information

### Meeting Location

Best Western Plus Hood River Inn  
1108 E Marina Way  
Hood River, OR 97031  
(541) 386-2200

### Meeting Facilitation

Nick Beleiciks  
Oregon Employment Department  
Nick.J.Beleiciks@employ.oregon.gov  
(503) 871-1358





## PNREC 2022 AGENDA

May 22–25, 2022

Best Western Plus Hood River Inn | 1108 E Marina Way | Hood River, OR

### Monday, May 23, 2022

<b>5:00 PM – 8:00 PM</b>	Registration
<b>6:00 PM – 8:00 PM</b>	Meet and Greet Reception (Appetizers and Drink Ticket, No Host Bar)
<b>Room: Shoreline</b>	

### Tuesday, May 24, 2022

<b>7:00 AM – 7:00 PM</b>	Registration	
<b>7:00 AM – 8:30 AM</b>	Continental Breakfast	
<b>Room: Atrium</b>		
<b>8:30 AM – 8:40 AM</b>	Welcome from PNREC President	Anneliese Vance-Sherman, Washington Employment Security Department
<b>Room: Gorge</b>		
<b>8:40 AM – 9:00 AM</b>	Welcome to Hood River	Jessica Metta, Executive Director of the Mid-Columbia Economic Development District
<b>Room: Gorge</b>		
<b>9:00 AM – 10:00 AM</b>	National Economic Outlook	Professor Rajeev Dhawan, Carl R. Zwerner Chair of Economic Forecasting, Georgia State University
<b>Room: Gorge</b>		
<b>10:00 AM – 10:15 AM</b>	Networking Break, Beverages and Snacks	



**10:15 AM – 11:30 AM** Concurrent Sessions (Session 1, Panels 1–3)

**Panel 1: Panel Discussion: Agriculture and Climate**

Room: Trillium East

Chair: Scott Bailey, Washington Employment Security Department

Amanda Hoey, CEO, Oregon Wheat Commission and Oregon Wheat Growers League

Rachael Horn, AniChe Winery, board member, Washington State Wine Commission

Mike Oates, orchardist, Hood River County Commissioner

**Panel 2: Panel Discussion - Canada/U.S. Border in the Time of COVID**

Room: Trillium West

Chair: Anneliese Vance-Sherman, Washington Employment Security Department

Ted Alden, Western Washington University (*remote*)

Laurie Trautman, Western Washington University

Chris Lawless, University of Victoria

**Panel 3: COVID Impacts**

Room: Columbia

Chair: Becky Knudson, Oregon Department of Transportation

Jeff Dense, Eastern Oregon University, *Trouble in Beervana: The Economic Impact of Covid-19 on the Craft Beer Industry in Oregon*

Kelley Cullen, Eastern Washington University, *An Examination of the Sales Impacts of the City of Walla Walla Streatery Policy*

Cassie Koefod, Central Washington University, *Wildfire Impact on Washington State and National Park Visitation*

**11:30 AM – 11:45 AM** Networking Break

**11:45 AM – 1:15 PM** Lunch and Labor Markets – Dr. Rob Valletta, Senior Vice President and Associate Director of Research, Federal Reserve Bank of San Francisco  
**Room: Gorge**

**1:15 PM – 1:30 PM** Networking Break



**1:30 PM – 2:45 PM**                      Concurrent Sessions (Session 2, Panels 4-6)

**Panel 4: Energy Economics (Part 1)**

Room: Trillium East

Chair: Massoud Jourabchi, Northwest Power and Conservation Council

Steve Simmons, Northwest Power and Conservation Council, *Electrification of Roadway Transportation in the Northwest*

John Ollis, Northwest Power and Conservation Council, *2021 Northwest Power Plan: Resource Plan for the Next 20 years*

Dor Hirsh Bar Gai, Northwest Power and Conservation Council, *Examining Community Solar Programs to Understand Accessibility and Investment: Evidence from the US*

**Panel 5: Data Visualization and Climate Risk**

Room: Trillium West

Chair: Anneliese Vance-Sherman, Washington Employment Security Department

Dan Hua, Northwest Power and Conservation Council, *Visualization of Climate Change Forecasted Temps and Percipitation*

Mikel Poppe, Washington Employment Security Department, *Data Visualization of STEM Jobs in Washington*

Hart Hodges, Western Washington University, *Influence of Climate Risk Scores Overstated with Mutural Fund Flows*

**Panel 6: Panel Discussion - Challenges and Opportunities in the Housing Industry**

Room: Columbia

Chair: Holi Urbas, U.S. Department of Housing and Urban Development

Tom Weaver, SRA and Chief Appraiser, Sterling Appraisal Group, LLC

James Young, Director, Washington Center for Real Estate Research -- University of Washington

Garad Derie, Manager, Parr Lumber

John Gillem, Director of Market Analytics for Oregon/Idaho, CoStar Group

Elliot Krivenko, Director of Market Analytics for Seattle, CoStar Group

**2:45 PM – 3:15 PM**                      Networking Break, Beverages and Snacks



**3:15 PM – 4:30 PM**

Concurrent Sessions (Session 3, Panels 7–8)

**Panel 7: Regional Macroeconomic Topics**

Room: Trillium East

Chair: Steve Lerch, Washington State Economic and Revenue Forecast Council

Fanny Roberts, Washington State Office of Financial Management, *2012 Washington State Input-Output Study*

Nye Tenerelli and Thomas Tenerelli, Central Washington University, *Macro Outlook and Market Valuation*

Nina Mantegna, REMI, *Child Tax Credit in Oregon and its Effect on Socioeconomic Indicators*

**Panel 8: Labor Market and Wage Gaps**

Room: Trillium West

Chair: Gail Krumenauer, Oregon Employment Department

Meghan Smith, University of Wyoming, *Understanding How Gender Differences in Wage Negotiation Behavior Affects the Gender Wage Gap*

Gail Krumenauer, Oregon Employment Department, *Reemployment of Oregon Following the Pandemic Recession*

Scott Bailey, Washington Employment Security Department, *Washington's Labor Market: Wages, Equity, Resignations, and Retirements in the Age of COVID*

**5:00 PM – 7:00 PM**

**(Gorge)**

Reception (Appetizers and Drink Ticket, No Host Bar) and Board Member Bill Beyers Remembrance



Wednesday, May 25, 2022

**7:00 AM – 3:00 PM** Registration

**7:30 AM – 8:30 AM** Breakfast

**Room: Atrium**

**7:40 AM – 8:00 AM** Welcome to Hood River Honorable Kate McBride,  
**Room: Gorge** Mayor of Hood River

**8:00 AM – 9:00 AM** *Monopoly Power and Democracy* – Matt Stoller, Director of  
**Room: Gorge** Research, The American Economic Liberties Project  
(remote)

**9:00 AM – 10:15 AM** Concurrent Sessions (Session 4, Panels 9–11)

**Panel 9: Regional Transportation Topics**

Room: Trillium East

Chair: Massoud Jourabchi, Northwest Power and Conservation Council

Mazen Malik, Oregon Legislative Revenue Office, *Climate Change Mitigation Strategies and Transportation Funding in Oregon*

Dr. Lewis Lem, Port of Portland, *Indicators of the Regional Economic Impacts of the Return of Container Shipping Service to the Port of Portland in Oregon*

Becky Knudson, Oregon Department of Transportation, *Oregon Coast Highway Landslide Vulnerability and Risk Assessment for Mitigation Prioritization*

**Panel 10: Environment / Resilience / Climate**

Room: Trillium West

Chair: Hart Hodges, Western Washington University

Peter Maille, Eastern Oregon University, *Evaluating an Alternative Role for Built Infrastructure in Supporting Economic Resilience: The Case of Eastern Oregon and Southeast Washington*

Chian Jones Ritten, University of Wyoming, *Incorporating Ecological, Landowner, and Public Finance Benefits into Conservation Program Design for Migratory Species*

Ellie Potts, Western Washington University, *Unmasking Climate Change*



**Panel 11: Energy Economics (Part 2)**

Room: Columbia

Chair: Terry Morlan, Northwest Power and Conservation Council (retired)

Massoud Jourabchi, Northwest Power and Conservation Council, *Impact of Covid 19 on Power System*

Mark Weimar, Pacific Northwest National Laboratory, *Valuing the Resilience of Passive Building Measures to Reduce Deaths Due to Severe Temperatures*

Patrick Balducci, Argonne National Laboratory and Mark Weimar, Pacific Northwest National Laboratory, *Demo of the Pumped Storage Hydro Valuation Tool*

**10:15 AM – 10:30 AM**      Networking Break, Beverages and Snacks

**10:30 AM – 11:45 AM**      Concurrent Sessions (Session 5, Panels 12–14)

**Panel 12: Wildcat Works**

Room: Trillium East

Chair: Tom Potiowsky, Portland State University

Zack Dowdy, Central Washington University, *Student Load Debt Response to Tuition Changes*

Kaylee Cooper, Central Washington University, *CWU Student Price Index*

Liam Schuler, Central Washington University, *A Descriptive Analysis of the Great Resignation and the Great Return*

**Panel 13: How Businesses Responded to COVID: State and National Results from the BLS Business Response Survey to the Coronavirus Pandemic**

Room: Trillium West

Chair: Scott Bailey

Emily Thomas, U.S. Bureau of Labor Statistics

Michael Dalton, U.S. Bureau of Labor Statistics



**Panel 14: Economic Diversification issues: Cannabis Growing Pains, Corporate Values and ESG in Tribal Enterprises and Universities**

Room: Columbia

Chair: Roger Coupal, University of Wyoming

Dr. Maggie apRoberts-Warren, Eastern Washington University, *The impact of recreational cannabis legalization on the incidence of homelessness in Washington and Colorado*

Halle Hull, Central Washington University, *Corporate Values of Tribally Owned Companies in Washington State*

Davyn Cox, Kameron Eck, Glen Mckee, Magnusson Mussard, Nye Tenerelli, and Derek Zinn, Central Washington University, *Environmental, Social, and Governance Investing Policies at Universities in the PNW*

**11:45 AM – 1:15 PM**

Lunch and Labor Markets – Dr. Vellore Arthi, Assistant Professor of Economics, University of California, Irvine

**Room: Gorge**

**1:15 PM – 1:30 PM**

Networking Break

**1:30 PM – 2:45 PM**

Concurrent Sessions (Session 6, Panels 15–16)

**Panel 15: Education Online and In Person**

Room: Trillium East

Chair: Steve Lerch

Toni Sipic and Thomas Tenerelli, Central Washington University, *Online Courses and the Decision to Major in Finance at CWU*

Nick Velluzzi, Walla Walla Community College, *Streams, Waterfalls, and Plunge Pools: COVID-19 and the Crisis of Enrollment in Washington State Community and Technical Colleges*

Dr. Codrin Nedita, University of Washington, *Lessons from remote teaching and the return to in-person education*



**Panel 16: Energy Economics (Part 3)**

Room: Trillium West

Chair: Patrick Balducci, Argonne National Laboratory

Eric E. Englert, Puget Sound Energy, *How Electric and Natural Gas Usage in the Puget Sound Region Was Impacted by COVID-19*

Scott McConnell, Eastern Oregon University, *Jevon's Paradox and Living Space: Energy Efficiency in Structural Development*

Betty Mittelstaedt, Central Washington University, *Alternative Transportation Operation Model in Ellensburg, WA*

**2:45 PM – 3:15 PM**

Networking Break, Beverages and Snacks

**3:15 PM – 4:45 PM**

Regional Outlook

**Room: Gorge**

Chair: Tom Potiowsky, Portland State University

Alaska – Dan Stickel, Alaska Department of Revenue  
(*remote*)

British Columbia – Brendan Ogmundson, BC Real Estate  
Association (*remote*)

Idaho – Greg Piepmeyer, Idaho Division of Financial  
Management

Oregon – Mark McMullen, Oregon Office of Economic  
Analysis

Washington – Steve Lerch, Washington State Economic and  
Revenue Forecast Council

Wyoming – Roger Coupal, University of Wyoming

**4:45 PM – 5:00 PM**

Closing Ceremonies

**Room: Gorge**





## **PNREC Board of Directors**

**Dr. Anneliese Vance-Sherman**, PNREC President, Washington Employment Security Department

**Mr. Nick Beleiciks**, PNREC Vice President, Oregon Employment Department

**Ms. Becky Knudson**, PNREC Secretary, Oregon Department of Transportation

**Dr. Terry Morlan**, PNREC Treasurer, Northwest Power and Conservation Council (Retired)

**Mr. Scott Bailey**, Washington Employment Security Department

**Mr. Patrick Balducci**, Argonne National Laboratory

**Dr. Patrick Barkey**, University of Montana

**Dr. C. Scott Benson**, Department of Economics, Idaho State University

**Dr. Roger Coupal**, Department of Agricultural and Applied Economics, University of Wyoming

**Dr. Hart Hodges**, Center for Economic and Business Research, Western Washington University

**Mr. Massoud Jourabchi**, Northwest Power and Conservation Council

**Mr. Chris Lawless**, University of Victoria, Canada

**Dr. Steve Lerch**, Washington State Economic and Revenue Forecast Council, State of Washington

**Mr. Mark McMullen**, Office of Economic Analysis, State of Oregon

**Dr. Tom Potiowsky**, Department of Economics, Portland State University



PACIFIC NORTHWEST REGIONAL ECONOMIC CONFERENCE

*A forum to exchange knowledge and expertise  
between academia, business and government*

